WHAT IS CLAIMED IS:

1. An information-processing apparatus for displaying and controlling print previews of document data inputted from an application, comprising:

data-generating means for generating rendering data reflecting considerations for device information regarding a printer according to the document data and the device information; and

displaying-and-controlling means for controlling to allow displaying means to display previews of the document data, which reflects considerations for the device information regarding said printer, according to the generated rendering data.

2. The information-processing apparatus according to claim 1, further comprising:

device-information-requesting means for requesting the device information from said printer, and

device-information-fetching means for fetching the device information from said printer according to a request from said device-information-requesting means.

3. The information-processing apparatus according to claim 1, wherein, when a defect is detected by said data-

generating means in an output from a device function based on the device information, said displaying-and-controlling means performs control so that said displaying means displays information regarding the detection of the defect.

4. The information-processing apparatus according to claim 1, further comprising correcting means for correcting print-specification information for the document data after the preview is displayed.

5. The information-processing apparatus according to claim 1, wherein said data-generating means manages the device information according to a printer coordinate system.

6. The information-processing apparatus according to claim 1, further comprising spooling means for receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating means generates rendering data from the intermediate data retained by said spooling means and reoutputs the rendering data to said rendering means.

7. The information-processing apparatus according to claim 1, further comprising print-data generating means for converting the rendering data inputted from said data-

generating means via rendering means controlled by an operating system to print-data that can be interpreted by said printer.

8. The information-processing apparatus according to claim 7, further comprising transmitting means for transmitting the print-data to said printer via a network, the print-data having been converted and generated by said print-data generating means.

9. The information-processing apparatus according to claim 1, wherein the device information is staple information.

10. The information-processing apparatus according to claim 1, wherein the device information is punched-hole information.

11. An information-processing method of displaying and controlling print previews of document data inputted from an application, comprising:

a data-generating step of generating rendering data reflecting considerations for device information regarding a printer according to the document data and the device information; and

a displaying-and-controlling step of controlling to allow displaying means to display previews of the document data, which reflect considerations for the device information regarding said printer, according to the generated rendering data.

12. The information-processing method according to claim 11, further comprising:

a device-information-requesting step of requesting the device information from said printer, and

a device-information-fetching step of fetching the device information from said printer according to a request in the device information.

13. The information-processing method according to claim 11, wherein, when a defect is detected in said data-generating step in an output from a device function based on the device information, said displaying-and-controlling step performs control so that said displaying means displays information regarding the detection of the defect.

14. The information-processing method according to claim 11, further comprising a correcting step of correcting print-specification information for the document data after the preview is displayed.

15. The information-processing method according to claim 11, wherein said data-generating step manages the device information according to a printer coordinate system.

16. The information-processing method according to claim 11, further comprising a spooling step of receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data in spooling means, wherein said data-generating step generates rendering data from the intermediate data retained by said spooling step and reoutputs the rendering data to said rendering means.

17. The information-processing method according to claim 11, further comprising a print-data generating step of converting the rendering data generated in said data-generating step and inputted from said data generating step via rendering means controlled by an operating system to print-data that can be interpreted by said printer.

18. The information-processing method according to claim 17, further comprising a transmitting step of transmitting the print-data to said printer via a network, the print-data having been converted and generated in the

print-data generating step.

19. The information-processing method according to claim 11, wherein the device information is staple information.

20. The information-processing method according to claim 11, wherein the device information is punched-hole information.

21. A storage medium containing a printer-driver program for controlling to allow displaying means to display print previews of document data inputted from an application, wherein said printer-driver program comprises:

data-generating program code for generating rendering data reflecting considerations for device information regarding a printer according to the document data and the device information; and

displaying-and-controlling program code for controlling to allow the displaying means to display previews of the document data, which reflect considerations for the device information regarding said printer, according to the generated rendering data.

22. The storage medium containing a printer-driver

program according to claim 21, wherein said printer-driver program further comprises:

device-information-requesting program code for requesting the device information from said printer, and

device-information-fetching program code for fetching the device information from said printer according to a request from said device-information-requesting program code.

23. The storage medium containing a printer-driver program according to claim 21, wherein, when a defect is detected by said data-generating program code in an output from a device function based on the device information, said displaying-and-controlling program code performs control so that said displaying means displays information regarding the detection of the defect.

24. The storage medium containing a printer-driver program according to claim 21, wherein said printer-driver program further comprises correcting program code for correcting print-specification information for the document data after the preview is displayed.

25. The storage medium containing a printer-driver program according to claim 21, wherein said data-generating program code manages the device information according to a

printer coordinate system.

26. The storage medium containing a printer-driver program according to claim 21, wherein said printer-driver program further comprises spooling program code for receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating program code generates rendering data from the intermediate data retained by said spooling program code and reoutputs the rendering data to said rendering means.

27. The storage medium containing a printer-driver program according to claim 21, wherein said printer-driver program further comprises print-data generating program code for converting the rendering data inputted from said data-generating program code via said rendering means controlled by said operating system to print-data that can be interpreted by said printer.

28. The storage medium containing a printer-driver program according to claim 27, wherein said printer-driver program further comprises transmitting program code for transmitting the print-data to said printer via a network, the print-data having been converted and generated by the

print-data generating program code.

29. The storage medium containing a printer-driver program according to claim 21, wherein the device information is staple information.

30. The storage medium containing a printer-driver program according to claim 21, wherein the device information is punched-hole information.

~~31~~. An information-processing apparatus for controlling preview display of document data generated by an application, comprising:

data-generating means for obtaining page-specification information for the document data to generate perspective-reverse-face rendering data when the page-specification information is a double-side-faces specification, and

displaying-and-controlling means for performing control so that displaying means displays a perspective-reverse-face preview of the document data according to the generated perspective-reverse-face rendering data.

32. The information-processing apparatus for controlling preview display of document data generated by an application according to claim 31, further comprising

specification means for specifying whether perspective-reverse faces are previewed or only obverse faces are displayed when previewing is performed for the document data for which the double-side-faces specification is set, wherein, when said specification means specifies that only the obverse faces are displayed, said data-generating means generates rendering data for only obverse faces of logical pages alternately every one page.

33. The information-processing apparatus for controlling preview display of document data generated by an application according to claim 32, wherein

said specification means specifies one of an even-number page and an odd-number page to be an obverse face, and

said data-generating means generates rendering data by assuming the specified page to be the obverse face.

34. The information-processing apparatus for controlling preview display of document data generated by an application according to claim 31, further comprising spooling means for receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating means generates rendering data from the

intermediate data retained by said spooling means and reoutputs the rendering data to said rendering means.

35. The information-processing apparatus for controlling preview display of document data generated by an application according to claim 34, further comprising print-data generating means for converting the rendering data inputted from said data-generating means via said rendering means controlled by said operating system to print-data that can be interpreted by said printer.

36. The information-processing apparatus for controlling preview display of document data generated by an application according to claim 35, further comprising transmitting means for transmitting the print-data to said printer via a network, the print-data having been converted and generated by said print-data generating means.

37. The information-processing apparatus for controlling preview display of document data generated by an application according to claim 36, wherein the previewing can be started before spooling of all logical pages.

~~38~~. An information-processing method of controlling preview display of document data generated by an application,

comprising:

a data-generating step of obtaining page-specification information for the document data to generate perspective-reverse-face rendering data when the page-specification information is a double-side-faces specification, and

a displaying-and-controlling step of performing control so that displaying means displays a perspective-reverse-face preview of the document data according to the generated perspective-reverse-face rendering data.

39. The information-processing method of controlling preview display of document data generated by an application according to claim 38, further comprising a specification step of specifying whether perspective-reverse faces are previewed or only obverse faces are displayed when previewing is performed for the document data for which the double-side-faces specification is set, wherein, when said specification step specifies that only the obverse faces are displayed, said data-generating step generates rendering data for only obverse faces of logical pages alternately every one page.

40. The information-processing method of controlling preview display of document data generated by an application according to claim 39, wherein

said specification step specifies one of an even-number page and an odd-number page to be an obverse face, and

said data-generating step generates rendering data by assuming the specified page to be the obverse face.

41. The information-processing method of controlling preview display of document data generated by an application according to claim 38, further comprising a spooling step of receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating step generates rendering data from the intermediate data retained by said spooling step and reoutputs the rendering data to said rendering means.

42. The information-processing method of controlling preview display of document data generated by an application according to claim 41, further comprising a print-data generating step of converting the rendering data inputted from said data-generating step via said rendering means controlled by said operating system to print-data that can be interpreted by said printer.

43. The information-processing method of controlling preview display of document data generated by an application

according to claim 42, further comprising a transmitting step of transmitting the print-data to said printer via a network, the print-data having been converted and generated in the print-data generating step.

44. The information-processing method of controlling preview display of document data generated by an application according to claim 43, wherein the previewing can be started before spooling of all logical pages.

45. A computer-readable storage medium containing a program for controlling preview display of document data generated by an application, comprising:

data-generating program code for obtaining page-specification information for the document data to generate perspective-reverse-face rendering data when the page-specification information is a double-side-faces specification, and

displaying-and-controlling program code for performing control so that displaying means displays a perspective-reverse-face preview of the document data according to the generated perspective-reverse-face rendering data.

46. The computer-readable storage medium containing a program according to claim 45, further comprising a

specification program code for specifying whether perspective-reverse faces are previewed or only obverse faces are displayed when previewing is performed for the document data for which the double-side-faces specification is set, wherein, when said specification program code specifies that only the obverse faces are displayed, said data-generating program code generates rendering data for only obverse faces of logical pages alternately every one page.

47. The computer-readable storage medium containing a program according to claim 46, wherein

said specification program code specifies one of an even-number page and an odd-number page to be an obverse face, and

said data-generating program code generates rendering data by assuming the specified page to be the obverse face.

48. The computer-readable storage medium containing a program according to claim 45, further comprising a spooling program code for receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating program code generates rendering data from the intermediate data retained by said spooling program code and

reoutputs the rendering data to said rendering means.

49. The computer-readable storage medium containing a program according to claim 48, further comprising a print-data generating program code for converting the rendering data inputted from said data-generating program code via said rendering means controlled by said operating system to print-data that can be interpreted by said printer.

50. The computer-readable storage medium containing a program according to claim 49, further comprising a transmitting program code for transmitting the print-data to said printer via a network, the print-data having been converted and generated by the print-data generating program code.

51. The computer-readable storage medium containing a program according to claim 50, wherein the previewing can be started before spooling of all logical pages.

~~52.~~ An information-processing apparatus for displaying and controlling print preview of document data generated by an application, comprising:

spooling means for receiving print commands from rendering means controlled by an operating system for the

document data and storing the print commands as intermediate files;

rendering-command-generating means for processing the intermediate files, which are stored in said spooling means, according to print-specification information, thereby generating rendering commands that can be interpreted by said rendering means controlled by said operating system; and

output-controlling means for outputting the generated rendering commands to said rendering means controlled by said operating system so that displaying means displays previews of the document data, which reflect considerations regarding a printer.

53. The information-processing apparatus for displaying and controlling print preview of document data generated by an application according to claim 52, wherein

said spooling means stores the intermediate files in units of a logical page outputted by said application, and

said rendering-command-generating means generates the rendering commands in units of a physical page specified in the print-specification information.

54. The information-processing apparatus for displaying and controlling print preview of document data

generated by an application according to claim 53, wherein said output-controlling means counts physical pages and performs control so that the physical pages are displayed when previewing is performed.

55. The information-processing apparatus for displaying and controlling print preview of document data generated by an application according to claim 54, further comprising specification-modifying means for modifying the print-specification information in the intermediate files stored in said spooling means, wherein said output-controlling means outputs the rendering command generated according to the print-specification information each time that the print-specification information is modified by said specification-modifying means.

56. The information-processing apparatus for displaying and controlling print preview of document data generated by an application according to claim 55, wherein said specification-modifying means comprises means for deleting a page description file as a job, which is a logical page in the intermediate file, wherein deletion of the logical page is performed so that said page description file for which deletion is instructed is not used in a job specification file that specifies a page description file in

a job.

57. An information-processing method of displaying and controlling print preview of document data generated by an application, comprising:

a spooling step of receiving print commands from rendering means controlled by an operating system for the document data and storing the print commands as intermediate files;

a rendering-command-generating step of processing the intermediate files, which are stored in said spooling step, according to print-specification information, thereby generating rendering commands that can be interpreted by said rendering means controlled by said operating system; and

an output-controlling step of outputting the generated rendering commands to said rendering means controlled by said operating system so that displaying means displays previews of the document data, which reflect considerations regarding a printer.

58. The information-processing method of displaying and controlling print preview of document data generated by an application according to claim 57, wherein

said spooling step stores the intermediate files in

units of a logical page outputted by said application, and

said rendering-command-generating step generate the rendering commands in units of a physical page specified in the print-specification information.

59. The information-processing method of displaying and controlling print preview of document data generated by an application according to claim 58, wherein said output-controlling step counts physical pages and performs control so that the physical pages are displayed when previewing is performed.

60. The information-processing method of displaying and controlling print preview of document data generated by an application according to claim 59, further comprising a specification-modifying step of modifying the print-specification information in the intermediate files stored in said spooling step, wherein said output-controlling step outputs the rendering command generated according to the print-specification information each time that the print-specification information is modified by said specification-modifying step.

61. The information-processing method of displaying and controlling print preview of document data generated by

an application according to claim 60, wherein said specification-modifying step comprises a step of deleting a page description file as a job, which is a logical page in the intermediate file, wherein deletion of the logical page is performed so that said page description file for which deletion is instructed is not used in a job specification file that specifies a page description file in a job.

62. A storage medium containing a print-preview program for controlling to allow diplay means to display print preview of document data generated by an application, comprising:

spooling program code for receiving print commands from rendering means controlled by an operating system for the document data and storing the print commands as intermediate files;

rendering-command-generating program code for processing the intermediate files, which are stored in said spooling program code, according to print-specification information, thereby generating rendering commands that can be interpreted by said rendering means controlled by said operating system; and

output-controlling program code for outputting the generated rendering commands to said rendering means controlled by said operating system so that the displaying

means displays previews of the document data, which reflect considerations regarding a printer.

63. The storage medium containing a print-preview program according to claim 62, wherein

said spooling program code stores the intermediate files in units of a logical page outputted by said application, and

said rendering-command-generating program code generates the rendering commands in units of a physical page specified in the print-specification information.

64. The storage medium containing a print-preview program according to claim 63, wherein said output-controlling program code counts physical pages and performs control so that the physical pages are displayed when previewing is performed.

65. The storage medium containing a print-preview program according to claim 64, further comprising a specification-modifying program code for modifying the print-specification information in the intermediate files stored in said spooling program code, wherein said output-controlling program code outputs the rendering command generated according to the print-specification information

each time that the print-specification information is modified by said specification-modifying program code.

66. The storage medium containing a print-preview program according to claim 65, wherein said specification-modifying program code comprises a program code for deleting a page description file as a job, which is a logical page in the intermediate file, wherein deletion of the logical page is performed so that said page description file for which deletion is instructed is not used in a job specification file that specifies a page description file in a job.

67. A printer-driver program for controlling preview display of document data generated by an application, comprising:

data-generating program code for generating rendering data reflecting considerations for device information regarding a printer according to the document data and the device information; and

displaying-and-controlling program code for controlling to allow displaying means to display previews of the document data, which reflect considerations for the device information regarding said printer, according to the generated rendering data.

68. The printer-driver program according to claim 67, wherein said printer-driver program further comprises:

device-information-requesting program code for requesting the device information from said printer, and

device-information-fetching program code for fetching the device information from said printer according to a request from said device-information-requesting program code.

69. The printer-driver program according to claim 67, wherein, when a defect is detected by said data-generating program code in an output from a device function based on the device information, said displaying-and-controlling program code performs control so that said displaying means displays information regarding the detection of the defect.

70. The printer-driver program according to claim 67, wherein said printer-driver program further comprises correcting program code for correcting print-specification information for the document data after the preview is displayed.

71. The printer-driver program according to claim 67, wherein said data-generating program code manages the device information according to a printer coordinate system.

72. The printer-driver program according to claim 67, wherein said printer-driver program further comprises spooling program code for receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating program code generates rendering data from the intermediate data retained by said spooling program code and reoutputs the rendering data to said rendering means.

73. The printer-driver program according to claim 67, wherein said printer-driver program further comprises print-data generating program code for converting the rendering data inputted from said data-generating program code via said rendering means controlled by said operating system to print-data that can be interpreted by said printer.

74. The printer-driver program according to claim 73, wherein said printer-driver program further comprises transmitting program code for transmitting the print-data to said printer via a network, the print-data having been converted and generated by the print-data generating program code.

75. The printer-driver program according to claim 67,

wherein the device information is staple information.

76. The printer-driver program according to claim 67, wherein the device information is punched-hole information.

77. A program for controlling preview display of document data generated by an application, comprising:

data-generating program code for obtaining page-specification information for the document data to generate perspective-reverse-face rendering data when the page-specification information is a double-side-faces specification, and

displaying-and-controlling program code for performing control so that displaying means displays a perspective-reverse-face preview of the document data according to the generated perspective-reverse-face rendering data.

78. The program according to claim 77, further comprising a specification program code for specifying whether perspective-reverse faces are previewed or only obverse faces are displayed when previewing is performed for the document data for which the double-side-faces specification is set, wherein, when said specification program code specifies that only the obverse faces are displayed, said data-generating program code generates

rendering data for only obverse faces of logical pages alternately every one page.

79. The program according to claim 78, wherein

said specification program code specifies one of an even-number page and an odd-number page to be an obverse face, and

said data-generating program code generates rendering data by assuming the specified page to be the obverse face.

80. The program according to claim 77, further comprising a spooling program code for receiving the document data via rendering means controlled by an operating system and retaining the document data as intermediate data, wherein said data-generating program code generates rendering data from the intermediate data retained by said spooling program code and reoutputs the rendering data to said rendering means.

81. The program according to claim 80, further comprising a print-data generating program code for converting the rendering data inputted from said data-generating program code via said rendering means controlled by said operating system to print-data that can be interpreted by said printer.

82. The program according to claim 81, further comprising a transmitting program code for transmitting the print-data to said printer via a network, the print-data having been converted and generated by the print-data generating program code.

83. The program according to claim 82, wherein the previewing can be started before spooling of all logical pages.

84. A print-preview program for controlling to allow display means to display print preview of document data generated by an application, comprising:

spooling program code for receiving print commands from rendering means controlled by an operating system for the document data and storing the print commands as intermediate files;

rendering-command-generating program code for processing the intermediate files, which are stored in said spooling program code, according to print-specification information, thereby generating rendering commands that can be interpreted by said rendering means controlled by said operating system; and

output-controlling program code for outputting the

generated rendering commands to said rendering means controlled by said operating system so that the displaying means displays previews of the document data, which reflect considerations regarding a printer.

85. The print-preview program according to claim 84, wherein

said spooling program code stores the intermediate files in units of a logical page outputted by said application, and

said rendering-command-generating program code generate the rendering commands in units of a physical page specified in the print-specification information.

86. The print-preview program according to claim 85, wherein said output-controlling program code counts physical pages and performs control so that the physical pages are displayed when previewing is performed.

87. The print-preview program according to claim 86, further comprising a specification-modifying program code for modifying the print-specification information in the intermediate files stored in said spooling program code, wherein said output-controlling program code outputs the rendering command generated according to the print-

specification information each time that the print-specification information is modified by said specification-modifying program code.

88. The print-preview program according to claim 87, wherein said specification-modifying program code comprises a program code for deleting a page description file as a job, which is a logical page in the intermediate file, wherein deletion of the logical page is performed so that said page description file for which deletion is instructed is not used in a job specification file that specifies a page description file in a job.